

Presidio Trails and Bikeways Master Plan & Environmental Assessment

National Park Service, U.S. Department of the Interior
The Presidio Trust

Presidio of San Francisco, Golden Gate National Recreation Area

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LIST OF ACRONYMS AND ABBREVIATIONS

AASHTO	American Association of State Highway Transportation Officials
ABAG	Association of Bay Area Governments
ac	Acres
ACHP	Advisory Council on Historic Preservation
Act	Presidio Trust Act
ADA	Americans with Disabilities Act
ADAAG	ADA Accessibility Guidelines
ANPR	Advanced Notice of Professional Rulemaking
APA	Administrative Procedures Act
Ave	Avenue
BAAQMD	Bay Area Air Quality District
BART	Bay Area Rapid Transit
BARTC	Bay Area Rapid Transit Council
BCDC	San Francisco Bay Conservation and Development Commission
BMPs	Best Management Practices
CalTrans	California Department of Transportation
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CHA	Cow Hollow Association
CHC	California Heritage Council
cm	Centimeters
Coastal Trail	California Coastal Trail
CWA	Clean Water Act of the United States
EAs	Environmental Assessments
EIS	Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FONSI	Finding of No Significant Impact
FPPHA	Fort Point and Presidio Historical Association
FR	Federal Register
ft	Feet
GG Transit	Golden Gate Transit
GGBHTD	Golden Gate Bridge, Highway and Transportation District
GGNPC	Golden Gate National Parks Conservancy
GGNRA	Golden Gate National Recreation Area
GIS	Geographic Information System
GMPA	General Management Plan
gpd	Gallons Per Day
h	Hectares
IMBA	International Mountain Bicycle Association
in	Inch/inches
km	Kilometers
lf	Linear Feet
LSRA	Lake Street Resident's Association
m	Meters
MCBC	Marin County Bicycle Coalition
mi	Miles
mm	Milimeters
mph	Miles Per Hour
MUNI	San Francisco Municipal Railway

NAPP	Neighborhood Associations for Presidio Trails Planning
NEPA	National Environmental Policy Act
NHL	National Historic Landmark
NHLD	National Historic Landmark District
NHPA	National Historic Preservation Act
NPCA	National Parks and Conservation Association
NPS	National Park Service
PA	Programmatic Agreement
PAR	Trails Planning Association of Richmond
PHAN	Presidio Heights Association of Neighbors
PM10	Particulate Matter Less than 10 Microns in Diameter
PTMP	Presidio Trust Management Plan
ROMP	Responsible Organized Mountain Pedalers
RTC	Rails to Trails Conservancy
SFBC	San Francisco Bicycle Coalition
SFBT	San Francisco Bay Trail
SFTC	San Francisco Tree Council
SHPO	State Historic Preservation Officer
sf	Square Feet
sm	Square Meters
TDM	Transportation Demand Management
Trails Plan	Presidio Trails and Bikeways Master Plan
Trust	Presidio Trust
Trust Board	Presidio Trust Board
USC	United States Code
USFWS	U.S. Fish and Wildlife Service
USPP	U.S. Park Police
VMP	Vegetation Management Plan



1. Introduction

1. Introduction

A Vision of the Future

The year is 2023, and as a beautiful summer day slides into evening, a group of people stop to enjoy a Pacific sunset at one of the Presidio's overlooks atop the coastal bluffs. The admirers include tourists, runners, a family out for a bicycle ride, a woman walking her dog, a wheelchair athlete taking a break from her training and a Presidio resident out for an evening stroll. All of them traveled to the overlook along the Presidio's well-maintained and interconnected network of pedestrian and multi-use trails and bikeways.

This idyllic scene had its start in 1999, when work began on a plan to develop a pedestrian and bicycle network that provides access to the Presidio's unique natural, cultural and historic resources.

The Master Plan

The Presidio Trails and Bikeways Master Plan (Trails Plan or plan) will provide park visitors, neighbors and Presidio residents with an interconnected, safe and enjoyable trails and bikeways system, while protecting and managing the Presidio's natural and cultural resources. The plan is a joint effort of the National Park Service (NPS) and the Presidio Trust (Trust), the two agencies responsible for managing the area. It will guide management of Presidio trails and bikeways for the next 20 years.

The vision for the plan was based on public and agency involvement and includes:

- Logical, comprehensive, user friendly connections
- A network of trails that provides a variety of trail experiences to meet user needs
- Access and challenge for different ages, skills and physical abilities
- Preservation of the valuable natural and cultural resources that make the Presidio an outstanding national resource



The Golden Gate Bridge from the Presidio.

- A system that is part of a comprehensive transportation strategy that supports the use of alternative transportation and reduces dependence on cars
- Coordination with regional and national trails and local bicycle routes
- An environmentally responsible trail system that fully incorporates the best in sustainable design and construction practices
- Ongoing public involvement in educational and stewardship programs

Analysis and Alternatives Development

The NPS and Trust carried out extensive on-site evaluation of the existing trail system, identifying physical and structural problems, use patterns, safety concerns and trail destination and connection opportunities. Presidio resources were evaluated to determine constraints to potential trail alignments and opportunities to correct existing problems or create new recreation, commuter routes and interpretive experiences. This analysis also reviewed trail corridors relative to geologic and hydrologic factors, biological resources, traffic safety, and cultural and scenic resources.

The analysis was mapped on a Geographic Information System (GIS) trail database so that trail alignments could be adjusted accordingly. If the resource analysis mapping indicated potential conflicts between resource protection and desired trail alignments, field checks were conducted to verify conditions and determine an appropriate course of action.



The Historic Cemetery

Based on this analysis, four trails and bikeways alternatives were developed for analysis in an Environmental Assessment (EA):

- **Alternative A**, the No Action Alternative, maintains the Presidio's current trails and bikeways network and assumes no comprehensive changes or new trail building
- **Alternative B**, the Mixed Use Alternative, features a mix of urban and natural visitor experiences, providing the widest range of trail types and connections for visitors (the Preferred Alternative)
- **Alternative C**, the Shared Use Alternative, provides the most wide, multi-use trails that accommodate large numbers of different types of visitors on the same trail

- **Alternative D**, the Dispersed Use Alternative, emphasizes separating pedestrians and bicycles, providing the most trails for pedestrians only

All the action alternatives (alternatives B, C, and D) provide a wide range of experiences, from urban promenade to quiet solitude, and propose about 36 km (23 mi) of newly designated trails in addition to existing trails. They differ in the amount of pedestrian-only versus multi-use trails and how those miles are dispersed throughout the Presidio.



Figure 1-1. Regional Map

Document Organization

This chapter provides project background, including analysis and alternative development, document organization, Presidio history, planning context, planning process, public involvement, changes to the plan, prioritization and phasing, and plan implementation. It also presents a background discussion on the plan's Environmental Assessment process under the National Environmental Policy Act (NEPA).

Chapter 2 describes the project's purpose, needs, goals and objectives.

Chapter 3 describes the Presidio's trails and bikeways classification system and design guidelines. The chapter also summarizes the Best Management Practices (BMPs) that would be incorporated in the action alternatives.

Chapter 4 reviews the four alternative trails and bikeways concepts developed for the Presidio and summarizes proposed trail modifications by trail corridor.

Chapter 5 analyzes the environmental impacts of the alternatives, as well as cumulative impacts.

Chapter 6 provides reference and consultation information.

Chapter 7, Appendices A-D, include the Finding of No Significant Impact (FONSI), public comments and responses to those comments, Best Management Practices (BMPs) and natural resource conservation measures. With approval of the Finding of No Significant Impact, the NPS and the Trust have selected and adopted Alternative B as their blueprint for trails and bikeways in the Presidio.

The Presidio's History

The Presidio of San Francisco is part of the Golden Gate National Recreation Area (GGNRA). It is also a National Historic Landmark District (NHL), the highest level of federal historic designation.

The park spans 1,491 acres on the northern tip of San Francisco, from the Pacific Ocean to the San Francisco Bay. The Presidio includes nearly 500 historic buildings and structures, a collection of coastal defense fortifications, a national cemetery, a historic airfield, a saltwater marsh, forests, beaches, native plant habitats (with federally listed species under the Endangered Species Act), coastal bluffs, miles of hiking and biking trails, and some of the most spectacular vistas in the world. Figure 1-1 illustrates the Presidio's regional context.

The Presidio has been shaped by many influences, including the Ohlone people who lived, gathered food and collected shellfish here, and the armies of Spain and Mexico. The Spanish established the Presidio as a military post in 1776, when Juan Bautista de Anza explored the peninsula and claimed the land for the king of Spain. When Mexico gained its independence from Spain in 1821, Mexican troops occupied the Presidio.

In 1848, the U.S. Army took over the area and remained in control of the Presidio until 1994. The military base was then closed and the Presidio transferred to the National Park Service to become part of the Golden Gate National Recreation Area. Up to that time, the Presidio was the oldest continuously operated military post in the nation.

As part of the transition, NPS completed and adopted a comprehensive land use plan called the General Management Plan Amendment (GMPA) in 1994. The GMPA defined the direction for resource preservation and visitor use of the Presidio, and proposed that a comprehensive trails and bikeways plan be created.

In 1996, Congress passed the Presidio Trust Act. The Act created the Presidio Trust and gave it jurisdiction over the park's non-coastal areas (Area B) – about 80 percent of the Presidio land. The NPS retained jurisdiction over the coastal areas (Area A). Areas A and B are shown in Figure 1-2.



Figure 1-2. The Presidio of San Francisco

The Act included a mandate that the Trust achieve financial self-sufficiency by 2013. On July 1, 1998, the Trust assumed administrative jurisdiction over Area B; and in August 2002 the Trust adopted an updated management plan for Area B, called the Presidio Trust Management Plan (PTMP).

Planning Context

The Trails Plan is coordinated and consistent with Presidio and regional plans.

- The GMPA now serves as the comprehensive land use plan for Area A of the Presidio. A key goal of the GMPA is to increase pedestrian and bicycle use. It proposes a trail circulation plan to improve bicycle and pedestrian safety, resource protection, user access, visitor amenities and trail connections.
- The PTMP is the Trust's comprehensive land use plan for Area B of the Presidio. It defines objectives for resource preservation and enhancement and public access. The PTMP calls for a comprehensive bicycle and pedestrian network, and includes policies regarding transportation demand management, public use and accessibility.
- The Presidio's Vegetation Management Plan (Presidio VMP) was prepared jointly by NPS and the Trust and completed in 2001. It describes restoration and maintenance goals for three landscape zones: 1) natural, native plant zones; 2) cultural, planted or ornamental landscape zones; and, 3) planted, historic forest zones. All the proposed trails and bikeways improvements are consistent with the VMP.

The Trails Plan also considers relevant regional trails and bikeways plans to enhance connections to and through the Presidio. Plans considered include the San Francisco Bicycle Plan, the San Francisco Bay Trail Plan, the Juan Bautista de Anza National Historic Trail Plan, and Bay Area Ridge Trail planning documents.

Planning Process

A multi-disciplinary core planning team consisting of NPS and Trust staff and consultants guided the planning process. The team consisted of experienced park planners



The Golden Gate Bridge from the Presidio

and staff with expertise in natural and cultural resources, facilities management, interpretation, visitor protection, and transportation. The planning process included:

- Scoping and public outreach
- Reviewing existing conditions
- Field analysis of site conditions
- Analyzing opportunities and constraints
- Developing a range of alternatives
- Describing the probable environmental impacts of the alternatives
- Preparing a plan
- Inviting the public to comment on the plan
- Responding to public comment and revising the plan
- Implementing the plan

Public Involvement

Scoping

NPS and the Trust invited and encouraged public comments between October 1999 and June 2000 to identify issues and develop goals and objectives for the Trails Plan. The scoping process included a public meeting, a series of focus group meetings, a design concept workshop, a survey of park users, and various opportunities for written comment. Key issues that emerged from public scoping have been considered and addressed in the Trails Plan or responded to in the Response to Comments provided in Appendix B. Major scoping issues included the following:

- Preserve and protect park resources
- Maintain and enhance the Presidio's wilderness feel
- Emphasize trail and park interpretation
- Improve trail signage and park wayfinding
- Develop a hierarchy of connected trails with permitted uses for each (e.g., restrict bicycles to certain trails)
- Improve on-street bicycle connections with striped and, where possible, separated bicycle lanes
- Enhance trail-related park amenities (e.g., provide more garbage cans, improve lighting at trailheads, construct restroom facilities)
- Calm park traffic and consider limited street closures (e.g., weekend closures)

- Provide additional parking at major trailheads
- Enforce existing and new park regulations
- Increase the number of designated off-street bicycle trails
- Develop sanctioned off-leash dog areas

Trails Plan

Prior to being made available to the public, the Trails Plan was featured in a cover article in the September 2002 edition of the *Presidio Post*, the Trust's monthly newsletter with a distribution of more than 14,000 individuals, organizations and agencies that are interested in activities at the Presidio. The article provided information on the Trails Plan planning process; the issues identified through the public scoping process and addressed in the document; goals and proposed improvements within the plan; and public involvement opportunities. The Trails Plan was presented at a public meeting held at the GGNRA Citizen's Advisory Commission on October 22, 2002. In addition, three plan-related walks and bike rides were offered on October 26, November 1 and November 2, 2002 for the public to learn more about proposed trails and bikeways improvements.

At the time of release of the Trails Plan on November 14, 2002, about 1,500 copies of its Executive Summary were distributed to Presidio tenants and residents, local neighborhood organizations and groups, and project neighbors. The Executive Summary provided an overview and key elements of the Trails Plan, and information on the NEPA review process. About 150 copies of the entire Trails Plan were distributed to city, state and federal government agencies, public interest groups, neighbors and various individuals. The Trails Plan was also available from the NPS website (www.nps.gov/goga). The Presidio Trust provided a link from its web site (www.presidiotrust.gov). The public was invited to provide oral comment on the Trails Plan at a joint GGNRA and Presidio Trust public meeting held at the GGNRA Park Headquarters on January 28, 2003. Members of the public were also encouraged to submit written comments. Staffed tables were also set up at Crissy Field on February 2 and February 9, 2003 to distribute information and help the public understand the Trails Plan. The 90-day public review period ended on February 12, 2003.

Comments

NPS and the Trust received a total of 100 written comment letters, faxes and emails on the Trails Plan. In addition, 27 individuals provided oral comments at the January 28, 2003 public meeting. Fourteen of those individuals also submitted written comment letters. The names of agencies, organizations and individuals commenting on the Trails Plan, and a summary of comments and responses, are provided in Appendix B. Copies of all written comments and the transcript and minutes of the public meeting are available for review in the Trust's library.

In general, key issues raised by the public included:

- A desire for greater separation between pedestrians and bicycles on the more popular trails to avoid user conflicts
- A desire to retain many existing trails to enhance pedestrian access to the park
- A desire for better signage, especially on the regional trails and major bike routes, and provide traffic calming measures for user safety and comfort
- A desire for improved access to and interpretation of historic and cultural resources, such as a historic trail through the Main Post
- A desire for off-road mountain biking within the Presidio
- Support for the use of trails in the park by dog walkers (either on- or off-leash)

Changes to the Trails Plan

In responding to specific suggestions from the public comments, NPS and the Trust made several changes to the Trails Plan, including modifications to the Preferred Alternative as evaluated in the Trails Plan. These changes were summarized at a joint GGNRA and Presidio Trust public meeting on May 20, 2003, and at a Presidio Trust Board meeting on June 17, 2003. The changes are explained further within the Response to Comments included in Appendix B.

User Conflicts

In response to requests for greater separation of pedestrians and bicyclists, the number of multi-use trails decreased slightly, and in some cases the locations were modified. For example, the trail immediately adjacent to West Pacific Avenue is now proposed as a pedestrian trail, and the parallel trail through the Pacific Grove and below Julius Kahn Playground is proposed as a multi-use connection. The change is intended to reduce the potential for conflicts between bicyclists on the multi-use trail and users of the playground.

Pedestrian Access

In response to suggestions to provide more pedestrian-only trail experiences and to retain more of the existing social trails, the Trails Plan clarifies that the majority of social trails will be retained, in most cases as secondary pedestrian trails, except where the trails would have an adverse effect on overriding resource values. To this end, the Preferred Alternative now converts more social trails to designated trails, including the trail leading from Battery Marcus Miller to North Baker Beach, and a connection from the Washington Boulevard overlook to Lincoln Avenue. In addition, in response to comments requesting smaller, narrower multi-use trails, the width of multi-use trails within the Preferred Alternative could be reduced from between 2.4 and 3.0 m (8 and 10 ft) to 1.8 m (6 ft) to permit a more intimate visitor experience where appropriate.



Public Scoping Meeting, December 1999

Off-Road Mountain Biking

In response to comments supporting off-road mountain biking, the Trails Plan clarifies that access for off-road mountain biking is provided through the multi-use trails within the park. In addition, a new multi-use trail has been included, connecting the Broadway Gate via Pacific Grove to Arguello Boulevard and the Bay Area Ridge Trail. As several commentors indicated, this trail provides an off-road connection through the Presidio from the southeast corner of the park to the Golden Gate Bridge. The trail can also be used with other multi-use trails and bike lanes to create loops throughout the park. Due to potential unacceptable impacts on park resources and values, an unpaved, single-track mountain bike experience is not being considered as requested.

Dog Walking and Off-Leash Recreation

In response to commentors' suggestions, the Trails Plan now acknowledges that on-leash dog walking is a popular form of pedestrian use of trails in the park, and clarifies that Presidio visitors with dogs on leash are allowed everywhere that pedestrians are allowed, including all pedestrian and multi-use paths. The Trails Plan also refers to the ongoing rulemaking process to develop an alternative pet management regulation for off-leash dog walking within the Presidio and the GGNRA as a whole. No decision regarding off-leash dog walking within the park will be made until the rulemaking process is completed.

Signage

In response to commentors' requests to improve signage, the Trails Plan now provides specific information that may be included on trailhead signs and guides. Clear and concise roadway and trail signage will identify trails and bikeways, guide users to their destinations, and inform motorists of the presence of bicyclists and pedestrians. The number and type of signs will not, however, be so pervasive as to create "sign clutter" and detract from the park setting. The Trust and NPS will continue to incorporate traffic calming into plans for roadway and intersection improvements within their separate jurisdictions.

Specific Trail Modifications

The following changes (shown in Figure 1-3) have been made to the Preferred Alternative to incorporate suggestions offered during public comment:

- **Coastal Trail.** A pedestrian connection from Battery Crosby, across to the sand ladder, then down and across Baker Beach has been added. This will create a pedestrian corridor connecting the Golden Gate Bridge to the 25th Avenue Gate. The multi-use trail adjacent to Lincoln Boulevard and bike lanes on both sides of Lincoln Boulevard has been retained.
- **Bay Area Ridge Trail.** The Bay Area Ridge Trail now crosses Washington Boulevard farther to the west, and includes a new multi-use segment adjacent to Washington Boulevard, connecting to Nauman Road and Amatory Loop. A new pedestrian crossing at Park Boulevard, as well as a new trail connection in the forest from Park Boulevard to Battery McKinnon-Stotsenberg is also being provided. The Bay Area Ridge Trail segment through the Rob Hill Campground will now continue as a multi-use trail, and a new pedestrian spur has been added from north of Building 1347 to the east of Building 1202 in Fort Scott. The trail alignment has been changed to connect the Harrison Boulevard/Kobbe Avenue intersection to Ralston Avenue, rather than using Greenough Avenue, skirting Building 1340. The Kobbe Avenue/Merchant Road intersection will also be improved.
- **Park Boulevard Trail.** The Park Boulevard/ Washington Boulevard intersection has been modified to create a better crossing. The sidewalk is now proposed on the west side of McDowell Avenue rather than the east side, and a new pedestrian connection to Crissy Field between Stilwell Hall and Building 649 has been added.
- **Ecology Trail.** The connection from Quarry Road onto Arguello Boulevard has been improved for both wheelchair users traveling to Inspiration Point, and for users who wish to cross to the Presidio Golf Course.
- **West Pacific/Mountain Lake Corridor.** Both a pedestrian and a multi-use corridor will be provided in this heavy use location to reduce user conflicts. The locations of the multi-use trail and the pedestrian trail through Pacific Grove and Julius Kahn Playground have been changed so that the pedestrian trail will be adjacent to the road and the multi-use trail will cut through the grove north of the playground.
- **Tennessee Hollow Trail.** A pedestrian trail will be located within the eastern tributary as part of the Tennessee Hollow trail corridor.
- **Lovers Lane.** The intersection of Lovers Lane and West Pacific Avenue will be modified to improve the spur to the Broadway Gate.
- **Presidio Promenade.** A consistent sidewalk route and bike lanes will be provided within this corridor, but not a continuous multi-use trail. The bike lanes will separate near the Cavalry Stables, using Patten Road for the westbound bike lane, and Lincoln Boulevard for the eastbound bike lane. Crissy Field Avenue will serve as a two-way multi-use path with no automobile traffic, subject to further Trust review and approval.
- **Wedemeyer Street/Battery Caulfield Road.** The connection from the 15th Avenue Gate to Washington Boulevard will include both an uphill bicycle lane and a pedestrian path (sidewalk) rather than a multi-use path to reduce user conflicts.



Army Museum

Plan Implementation

Trust and NPS will develop specific site plans for individual trails and bikeways as they implement the management actions recommended in the Trails Plan. Site-specific planning will address precise trail configurations and locations, trail width, surface, signs, trailheads, slopes, drainage and other physical attributes. These improvements will be developed within the context of the broader vision and BMPs identified in this plan. Additional compliance will be conducted as necessary.

Prioritization and Phasing

Individual trail and bikeway improvement projects will be implemented based on priority, phasing and funding. The Trust and NPS developed the following criteria for determining an implementation schedule:

- 1) Trails and intersections with safety concerns
- 2) Trails and intersections with personal security concerns
- 3) Trails currently causing natural resource and/or cultural resource damage
- 4) Trails with accessibility concerns

- 5) High use and highly desired trails
- 6) Trails where other construction activity is occurring (e.g., areas such as Letterman)
- 7) Trail segments that complete corridor connections
- 8) Trails that provide an outside funding or matching fund opportunity

The Trail Corridors map, Figure 4.2, illustrates the implementation priorities of the Trust and NPS. These corridors provide the major framework of connectivity within the Presidio, and respond to the list of implementation criteria above. Improvements to these corridors will improve accessibility, connectivity and safety throughout the Presidio. After the major network described in the Trail Corridors map is funded and implemented, the smaller connectors that form the complete Trails Plan will be implemented.

Corridor improvements will be made over time, and elements of each corridor will not necessarily be implemented concurrently. For example, installing striped bike lanes and pedestrian trails may precede constructing multi-use trails.

Environmental Assessment

The Council on Environmental Quality's (CEQ) regulations implementing the NEPA allow federal agencies to prepare an EA on any action (when no Environmental Impact Statement is necessary) to assist agency planning and decision making (40 CFR 1501.3). The Trails Plan includes an integrated EA, which evaluates the potential environmental effects of four trails and bikeways alternatives.

While NPS and the Trust have separate jurisdictional responsibilities in the Presidio and separate authority to approve, veto or finance all or part of the Trails Plan (jurisdiction by law), the agencies collaborated in the preparation of this document to comply with NEPA. According to the CEQ NEPA Regulations, an EA is a concise public document prepared by federal agencies when a proposed action is not covered by a categorical exclusion or otherwise exempt from the NEPA. Both NPS and the Trust prepare EAs when they have insufficient information with which to determine whether a proposed action has the potential to cause significant environmental effects. An EA provides evidence and analysis to determine whether an Environmental Impact Statement (EIS) is required, aids a federal agency's compliance with NEPA when an EIS is not necessary, and facilitates preparing an EIS when one is necessary (40 CFR 1508.9(a)).

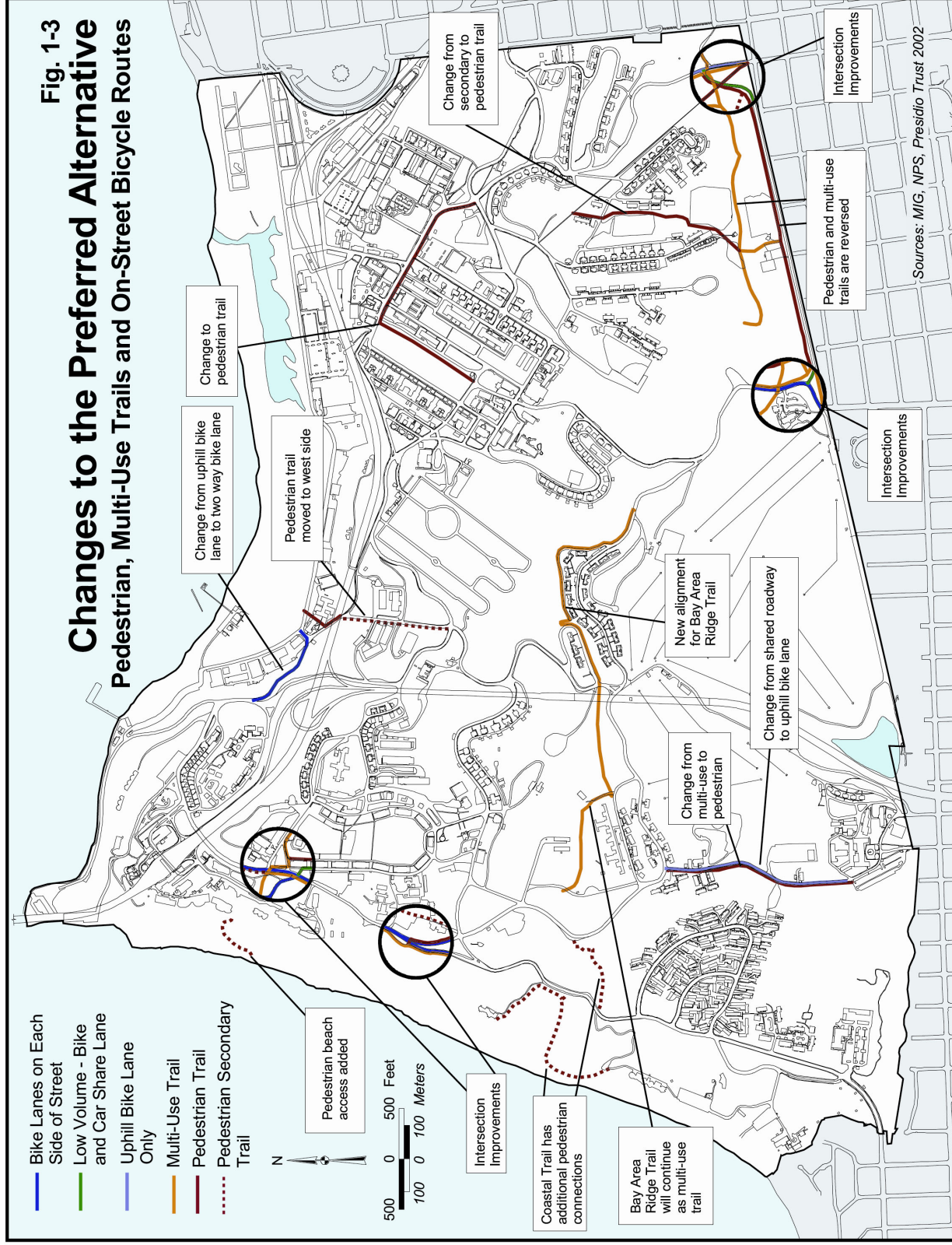


Figure 1-3. Changes to the Preferred Alternative